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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,943	02/12/2004	Toshiharu Watanabe	44471/297401	5357

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1100 PEACHTREE STREET
ATLANTA, GA 30309

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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05/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/777,943

Applicant(s)

WATANABE ET AL.

Examiner

Ljiljana (Lil) V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006 and 1 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. This Office action is in response to the replies filed on December 21, 2006 and on March 1, 2007.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection presented herein below.

Election/Restrictions

3. Claims 4 and 7 through 10 hereby remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to the nonelected second and third species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on June 30, 2006.

Drawings

4. Replacement sheets including the required corrections for Figures 1 and 2 were received on December 21, 2006. These drawings are hereby approved.

Specification

5. Receipt and entry of the amended abstract filed on March 1, 2007 is hereby acknowledged.
6. The disclosure is objected to because of the following informalities: oil-conducting passages 17 and 18 (as per Figures 1 and 2 as well as the original claims corresponding thereto) which contain NO refrigerant are inappropriately referred to as "refrigerant passages" on pages 13 and 14 of the specification.

Appropriate correction is required.

Claim Objections

7. Claims 2, 3, and 11 are objected to because of the following informalities: "the" should be inserted immediately preceding each occurrence of "top" and "bottom" in each of lines 6 and 9 of claim 11. Appropriate correction is required.

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Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2, 3, and 11 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicants regard as their invention. Evidence that claims 2, 3, and 11 fail to correspond in scope with that which applicants regard as the invention can be found in the originally filed claims as well as in Figures 1 and 2. In those papers, as well as on pages 13 and 14 of the originally filed specification, applicant has disclosed ONLY oil to be passing through “refrigerant” passages 17 and 18, and this statement indicates that the invention is different from what is defined in the claim(s) because there is NO oil flowing through “refrigerant” passages 17 and 18.

10. Claims 2, 3, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “refrigerant passages” in lines 9 and 14-15 of base claim 11 is used by the claim to mean “oil-conducting passages” as per Figures 1 and 2 while the accepted meaning is “refrigerant-conducting passages.” The term is indefinite because the specification does not clearly redefine the term and this term appears to be merely a typographical error carried over from pages 12 and 13 of the specification which use this same term but disclose the corresponding passages 17 and 18 as carrying oil, not refrigerant.

Claim Rejections - 35 USC § 103

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11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. As best can be understood in view of the indefiniteness of the claims, claims 2, 3, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calsonic Corporation Tokyo (EP 0 855 566 A2, previously made of record by applicant via IDS) in view of Fang et al. (U.S. Patent No. 6,793,012 B2, filed on May 7, 2002).

Calsonic Corporation Tokyo discloses a vehicular heat exchanger essentially as claimed, including, for example: a radiator 23; a condenser 21 arranged in front of the radiator 23, the condenser 21 including a condenser core part 29 as well as refrigerant passages 25 and 27, the condenser 21 having a vertical height smaller than that of the radiator 23; and, an oil or fluid cooler 49 including an oil or fluid cooler core part 29A as well as "refrigerant passages" (i.e., fluid or oil passages) 47 and 47a/47b, the oil cooler core part 29A being integrated with one side of the condenser core part 29. See Figures 1 and 2. While Calsonic Corporation Tokyo does disclose both refrigerant passages 25 and 27 and fluid passages 47 and 47a/47b as having respective inlets 57 and 53 and outlets 59 and 55, Calsonic Corporation Tokyo does not specifically disclose the inlet 57 and outlet 59 of the condenser 21 as facing in one direction while the inlet 53 and outlet 55 of the fluid or oil cooler 49 face an opposite direction. Nevertheless, absence a showing of criticality or unexpected results, it is a mere matter of obvious design choice taught for example by Fang et al. ('012) to have the inlets 14 and outlets 16 of two respective fluids of an integrated multi-fluid vehicular heat exchanger similar to the one disclosed by Calsonic Corporation Tokyo facing opposite directions [see Figure 1, as well as lines 40-52 of column 4, lines 52-67 of column 6, and lines 1-25 of column 7] in order to meet system requirements.

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Thus, it would have been obvious to one skilled in the art at the time of invention to modify the multi-fluid vehicular heat exchanger of Calsonic Corporation Tokyo by having the inlet/outlet pair corresponding to the condenser portion of the heat exchanger face in a direction opposite to the direction faced by the inlet/outlet pair corresponding to the fluid/oil cooler portion of the heat exchanger as taught by Fang et al. ('012) in order to, for example, facilitate manufacture and assembly of the multi-fluid heat exchanger within the corresponding vehicular engine cooling systems.

Conclusion

13. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible schedule, but can normally be reached weekdays between 10:30 a.m. and 6:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



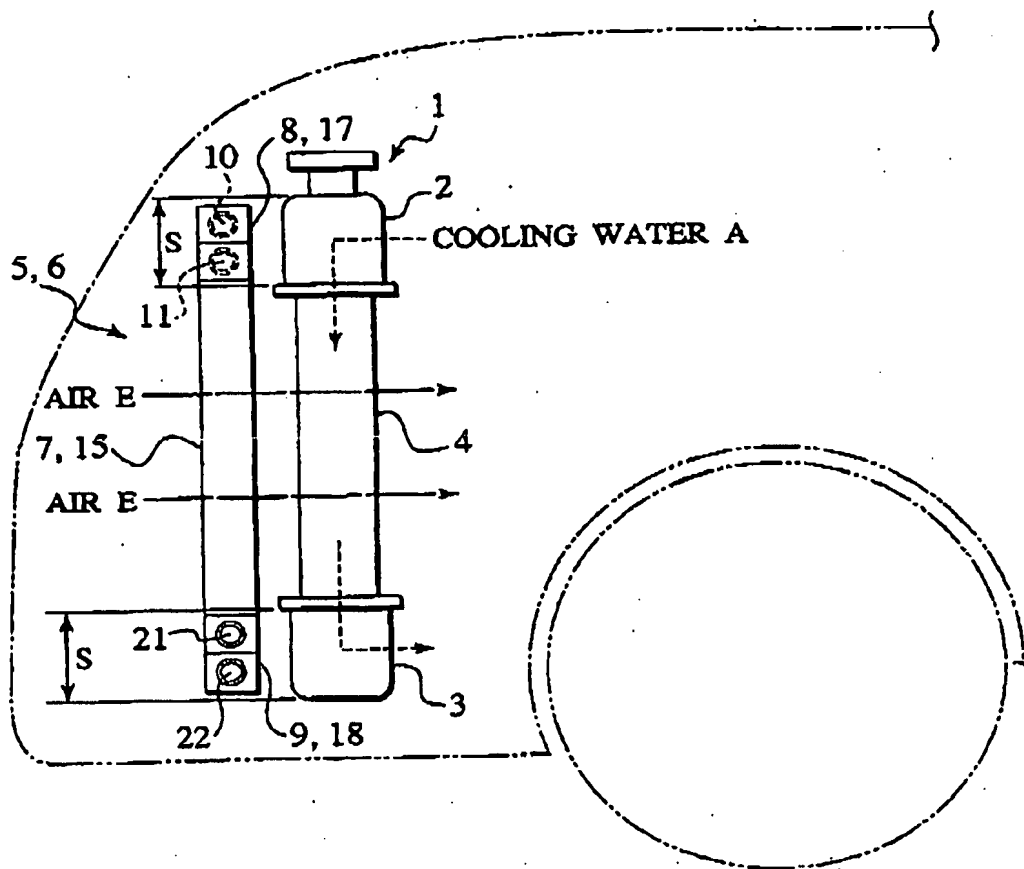
Ljiljana (Lil) V. Ciric
Primary Examiner
Art Unit 3744

Approved
LVC 5-7-07

Replacement Sheet

2/11

FIG.2



Approved,
A.V.C. 5-7-07

Dec-21-06 12:00

Fran-KILPATRICK STOCKTON LLP

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T-160 P.12/13 F-110

Replacement Sheet

1/11

